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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/921,560	08/06/2001	Koji Matsukuma	102392.01	7818

25944 7590 03/28/2002

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EXAMINER

COLLINS, DEVEN M

ART UNIT	PAPER NUMBER
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2823

DATE MAILED: 03/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/921,560

Applicant(s)

MATSUKUMA, KOJI

Examiner

D. M. Collins

Art. Unit

2823

-- The MAILING DATE of this communication appears n th cover sheet with the correspondence address --

Period of Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-37 is/are pending in the application.
- 4a) Of the above claim(s) 33-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

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DETAILED ACTION

Election/Restriction

1. Applicant's election of Group I, claims 27-32 in Paper No. 4 is acknowledged. The traversal is on the ground(s) that the fields of search for the Group I and II inventions are co-extensive. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Also, since both inventions are classified in two distinct classes, the examination of both inventions does indeed constitute a burden on the examiner.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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3. Claim 27-32 are rejected under 35 U.S.C. 102(b) as being unpatentable over Gulde et al. (4,838,994, dated 6/13/89).

Gulde et al. show the apparatus as claimed in the Figures 1-14 with corresponding text.

In re claim 27, Gulde et al. disclose an etching mask 3 for selectively etching a workpiece, wherein the etching mask 3 is made of a metal 2 and has a cross-sectional shape comprising a rectangular first region that determines a pattern width of the workpiece 1, and a second region that intercepts application of etching beams (Fig. 2) to a sidewall of the first region during etching.

In re claim 28, Gulde et al. disclose the etching mask 3 according to claim 27, wherein the etching mask 3 has a T-shaped cross section.

In re claim 29, Gulde et al. disclose the etching mask 3 according to claim 28, comprising a cross section including a vertical bar having an end that contacts 6 with a surface of the workpiece 1, and a lateral bar placed on another end of the vertical bar and having a width greater than a width of the vertical bar, wherein a pattern width of the workpiece 1 is determined by the width of the vertical bar.

In re claim 30, Gulde et al. disclose the etching mask 3 according to claim 27, comprising a cross section including a vertical bar having an end that contacts with a surface of the workpiece 1, and a lateral bar placed on another end of the vertical bar and having a width greater than a width of the vertical bar, wherein a pattern width of the workpiece 1 is determined by the width of the vertical bar.

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In re claim 31, Gulde et al. disclose the etching mask 3 according to claim 28, wherein the metal 2' is selected from the group consisting of NiFe, NiB, NiP, Cu, Au and an alloy comprising one of Co and Ta.

In re claim 32, Gulde et al. the etching mask 3 according to claim 27, wherein the metal 2' is selected from the group consisting of NiFe, NiB, NiP, Cu, Au and an alloy comprising one of Co and Ta.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Deven M. Collins whose telephone number is (703) 305-7840. The examiner can normally be reached on Monday-Friday from 6:30 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael M. Fahmy, can be reached on (703) 308-4918. The fax phone number for this Group is (703) 305-3432.

Serial Number: 09/921560

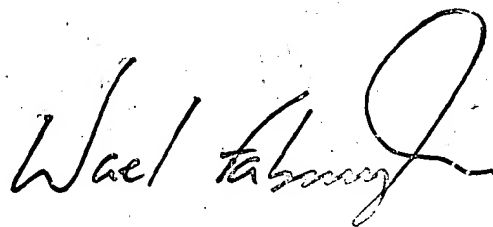
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

DMC

March 22, 2002

A handwritten signature in black ink, appearing to read "Wael Tabbara". The signature is fluid and cursive, with a large loop at the end.

SUPERVISORY PRIMARY EXAMINER
TECHNOLOGY CENTER 2000